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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,119	06/22/2001	Takahiro Ito	Q62668	4996

7590 07/13/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

MAKI, STEVEN D

ART UNIT PAPER NUMBER

1733

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/886,119	Applicant(s) ITO ET AL.	
	Examiner Steven D. Maki	Art Unit 1733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 16 is/are allowed.
- 6) ☒ Claim(s) 7-15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1733

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4-22-04 has been entered.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 12 and 13, it is unclear if the entire sub-groove (in contrast to merely the central main portion) is offset from the diagonal.

4) Applicant is advised that should claims 8 and 9 be found allowable, claims 12 and 13 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 12 has the same scope as claim 8 (claims 12 and 8 describe the same tire).

Claim 13 has the same scope as claim 9 (claims 13 and 9 describe the same tire).

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6) **Claims 8-9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers et al '766 (US 5176766) in view of and Ichiki (US 5327953).**

Landers et al '766 discloses a pneumatic tire having circumferential grooves intersecting lateral grooves to form lugs (blocks) wherein (a) each lug has substantially a quadrilateral form and (b) each lug contains a **single slot (single sub-groove)** completely crossing the lug. Each slot (sub-groove) comprises end portions connecting an inclined central main portion to circumferential grooves. As can be seen from figure 4, the inclined central main portion is shown as being offset from a diagonal of the block. The block also contains notches terminating in a blind slot (sub-groove).

However, it would have been obvious to one of ordinary skill in the art to form Landers et al's blocks such that each block has the crossing slot but no blind slots (has only one sub-groove as claimed) since Ichiki, also disclosing a sub-groove having end portions connecting a central main portion to circumferential grooves (figure 2b), suggests that using only one sipe per block (col. 4 lines 42) in order to sufficiently develop traction and braking performance (col. 4 lines 10-16). The limitation of the central main portion

Art Unit: 1733

being substantially in parallel to a diagonal of the block at a position offset from the diagonal is suggested by Landers et al '766, which as noted above, shows offsetting the central main portion of the slot from the diagonal of the block.

As to claims 9 and 12, the offset is in a direction away from the EP of the tire.

As to claim 11, Landers et al '766 discloses blocks in an inner row and blocks in an outer row. Claim 11 does not appear to require an offset toward the EP.

**7) Claims 10-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers et al '766 in view of Ichiki as applied above and further in view of Landers '169 (US 5824169).**

As to claims 10-11 and 13-14, it would have been obvious to one of ordinary skill in art to arrange the sub-grooves in Landers et al '766 such that they extend along the shorter diagonal of the block with the central main portion being offset toward the EP since Landers et al '169, which discloses a tread pattern substantially similar to that of Landers '766, teaches arranging sub-grooves in blocks such that the central main portion extends along the shorter diagonal (instead of the longer diagonal) of the block and is offset toward the EP (see figure 3) in order to minimize the difference of principle direction of lug stiffness between individual lugs.

**8) Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers et al '766 in view of Ichiki as applied above and further in view of Europe '104 (EP 810104) and/or Lurois (US 5896905).**

As to claims 7 and 15, it would have been obvious to one of ordinary skill in the art to incline the sipes of Landers et al '766 as set forth in claims 7 and 15 in view of

Art Unit: 1733

(1) Europe '104's suggestion to incline sub-grooves (sipes) with respect to the radial direction so that the tire has good braking properties on wet ground and good traction properties on snow and ice and /or (2) Lurois's suggestion to incline sub-grooves (sipes) with respect to the radial direction differently for front tires and rear tires to improve wear.

9) **Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landers et al '766 in view of Ichiki as applied above and further in view of Europe '890 (EP 573890).**

As to claim 17, it would have been obvious to mount front and rear tires of Landers et al '766 on a vehicle as claimed since (a) Landers et al '766 teaches mounting the tire either forward (for improved wet traction) or backward (for superior traction in snow) and (b) Europe '890 suggests mounting directional tires on a vehicle such that the directional tread pattern for the front tires are mounted opposite of that for the rear tires.

#### **Allowable Subject Matter**

10) **Claims 1-6 and 16 are allowed.**

#### **Remarks**

11) Applicant's arguments with respect to claims 7-15 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 4-22-04 have been fully considered but they are not persuasive. None of the claims exclude tie bars in the sub-groove.

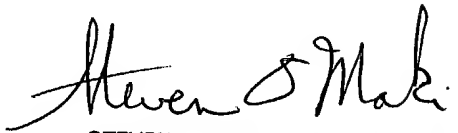
Art Unit: 1733

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki  
July 12, 2004

  
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PRIMARY EXAMINER  
~~GROUP 1300~~  
AU 1733  
7-12-04